

## THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

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1       An assembly enabling filtration of mixed hot and cold water; the assembly including;

a faucet capable of receiving hot and cold water and discharging mixed hot and cold water through an outlet in the faucet,

10       control means for operating the faucet;

a filter assembly adapted for insertion in a water supply line in which water to be filtered flows;

at least a first conduit having a supply of water and in communication with a mixing chamber disposed in said faucet,

15       a first outlet line from said mixing chamber communicating with the filter assembly and which delivers mixed water to said filter assembly,

an outlet line from said filter assembly communicating with said mixing faucet;

20       wherein mixed water exiting from the mixing chamber is filtered by said filter assembly upstream of said faucet and prior to discharge of mixed water from said outlet of said faucet.

2       An assembly according to claim 1 further comprising at least a second conduit having a supply of water and which is in communication  
25       with the chamber disposed in said faucet, wherein the first and second conduits respectively deliver hot and/ or cold water to said chamber in said faucet.

3       An assembly according to claim 2 wherein the chamber of the, faucet includes respective inlets for each said first and second conduits.

30       4       An assembly according to claim 3 wherein, hot water from one said first or second line and cold water from said first or second line are mixed in said chamber.

5       5       An assembly according to claim 4 wherein the mixing chamber includes an outlet in communication with the filter assembly.

6           An assembly according to claim 5 wherein the outlet communicates with said filter assembly via a conduit.

7           An assembly according to claim 6 wherein the filter assembly includes an inlet which receives water from said mixing chamber in said faucet .

8           An assembly according to claim 7 wherein the filter assembly is arranged to allow filtration in said filter assembly of hot or cold or mixed hot and cold water from the mixing chamber.

9           An assembly according to claim 8 wherein the filter assembly is disposed between the mixing chamber and the outlet of said faucet.

10           An assembly according to claim 9 wherein the filter assembly further comprises an outlet through which filtered water passes in transit to said outlet of said faucet

11           An assembly according to claim 10 wherein, the faucet includes a spout for dispensing mixed, filtered water from an orifice.

12           An assembly according to claim 11 wherein, a valve allows the faucet to switch between delivery of hot and cold water or mixed hot and cold water , wherein the valve includes a valve body having an input channel means for receiving each of said hot water or said cold water or mixed hot and cold water.

13           An assembly according to claim 12 wherein the filter assembly comprises a filter housing defining a cavity therein, and a filter cartridge disposed inside the housing and a closure for sealing the cavity.

14           An assembly according to claim 13 wherein the closure comprises a removable housing end cap allowing insertion and replacement of a filter cartridge in said housing.

15           An assembly according to claim 14 wherein, the faucet assembly includes a single adjustable valve means and adjusting lever means to regulate the flow of filtered water therefrom.

16 An assembly according to claim 15 wherein, the filter assembly housing includes at least two filters.

5 17 An assembly according to claim 16 wherein there are at least two filter assemblies in series.

18 A mixing faucet and filter assembly, comprising:  
a faucet body having therein a mixing chamber capable of receiving cold water and hot water, said faucet body including at least two inlet lines in communication with the chamber;

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at least one outlet line from the mixing chamber in communication with at least one filter assembly disposed in the outlet line; wherein water mixed in the mixing chamber passes through the at least one filter prior to discharge of said mixed water from an outlet to the faucet;

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19 An assembly according to claim 18 wherein there are multiple outlet lines carrying mixed hot and cold water emanating from the mixing chamber.

20 20 An assembly according to claim 19 wherein, the faucet includes a mounting means which allows the faucet to be affixed to a rear deck of a sink.

21 An assembly enabling filtration of mixed hot and cold water; the assembly including;

25 a faucet having control means for operating the faucet, an inlet for receiving mixed water an outlet for discharging mixed water;

a mixing chamber which receives at least two water streams from at least one water source,

an outlet to said mixing chamber for discharging water mixed from said at least two water streams,

30 a filter assembly adapted for insertion in at least one water line in communication with said outlet from the mixing chamber;

an outlet line from said filter assembly communicating with said mixing faucet; whereupon water exiting said filter assembly travels via said water line from the filter assembly to said outlet of said mixing faucet.

5           22       An assembly according to claim 21 wherein the first and second conduits respectively deliver hot and/ or cold water to said mixing chamber in said faucet; wherein the chamber of the faucet includes respective inlets for each said first and second conduits.

10           23       A mixing faucet and filter arrangement, comprising:  
a faucet body having a mixing chamber capable of receiving cold water and hot water therein, said body having a lower end which receives at least two inlet lines in communication with the mixing chamber;  
at least one outlet line from the mixing chamber in communication with at least one filter assembly disposed in the outlet line; wherein water mixed in  
15       the mixing chamber passes through the at least one filter before exiting from said mixing faucet.

20           24       A method of filtering water delivered to a mixing faucet from a water supply, using an assembly including a mixing faucet having a faucet and a mixing chamber capable of receiving cold and hot water therein, said faucet body having a lower end which receives at least two inlet lines in communication with the mixing chamber and which deliver water to the chamber;

the method comprising the steps of :

- 25           a)       taking at least one filter assembly and placing the at least one filter assembly in a water supply line capable of delivering mixed hot and cold water from the mixing chamber of the faucet;
- b)       allowing water mixed in said mixing chamber to pass through the at least one filter assembly;
- 30           c)       allowing mixed hot and cold water to exit the at least one filter assembly so that water passing through the filter is hot and/or cold water so that any water discharged from the faucet is filtered.